

ON SOME ORIENTAL *SPHINGIDAE*.

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(With five text-figures.)

1. *Oxyambulyx sericeipennis* Butl. (1875).

THERE are two subspecies in India, one inhabiting the North-West and the other the North and North-East. We had no specimens from North-West India when we wrote the account of the species in the *Revision*.

a. *O. s. sericeipennis* Butl. (1875).

O. sericeipennis Butler, *Proc. Zool. Soc. Lond.* p. 252. no. 34 (1875) (Massuri); Roths. & Jord. *Revision of Sphingidae*, p. 195. no. 156 (1903) (partim; Randakheit).

Major F. B. Scott has bred a small series of this subspecies.

Hab. N.W. India.

b. *O. s. sericeipennis agana* subsp. nov.

O. sericeipennis Butl., Roths. & Jord., l.c. tab. 9. fig. 2 ♂, tab. 22. fig. 27, tab. 23. fig. 9, tab. 30. fig. 9, tab. 31. fig. 16 (1903) (partim; Sikkim, Khasia and Jaintia Hills, and Tenasserim).

♂♀. On the whole larger than the N.W. Indian subspecies, but many specimens in the series bred by Major F. B. Scott at Shillong small (underfed?). The underside of both wings paler yellow than in *O. s. sericeipennis*, less brick-red, particularly in the outer half.—Process (uncus) of anal tergite narrower, its apical portion as seen from the side wider vertically; the dentate ridge of the harpe of the clasper somewhat longer.

Hab. Sikkim (type figured on tab. 9 of the *Revision*); Assam; Tenasserim.

2. *Marumba gaschkewitschi fortis* subsp. nov.

♂♀. Forewing as long as in *M. g. irata* Joicey & Kaye (1917), to which this subspecies is nearest in its colouring as well as geographically; dentition of terminal margin more prominent; on upperside the interspace between the two outer antemedian lines and that between the two inner discal lines filled in with brown, thus two transverse bands being formed which are more conspicuous and deeper in tone than in any specimen we have of other subspecies of *M. gaschkewitschi*; terminal area deep brown, extending in costal two-fifths of wing to the outermost discal line; subternal blackish brown double spot large.—Hindwing as in *M. g. complacens* distally much shaded with brown, anal mark large.

On underside the brown disal line of the forewing distinct from costa to below middle, separating a narrow grey band from the grey discal area, the disc proximally of this line washed with brown, more so in ♂ than in ♀.—On the hindwing the interspace between the two proximal median lines filled in with brown, this band crossing the tip of the cell; the brown line placed beyond this band very distinct; terminal area nearly as in *M. g. complacens*, contrasting strongly with the greyish discal band, the discal line which forms the boundary

of the dark terminal area diffuse.—The colouring of the underside on the whole brighter in the ♀ than in the ♂.

Length of forewing: ♂ 48 mm., ♀ 54 mm.

Hab. Yunnan, a pair in the Tring Museum.

3. *Rhodoprasia callantha* sp. nov.

A beautiful species recently bred by Major F. B. Scott.

♂♀. Whereas in *Rh. floralis* Butl. (1877), the only other known species of the genus, the foretibia bears a long thorn or claw at the apex, there is no such armature in the new species. This difference might be considered to be of generic value; but the new species agrees otherwise so well with *Rh. floralis* that the original diagnosis of *Rhodoprasina* R. & J. (1903) should be modified rather than that a new genus be erected for the reception of *Rh. callantha*.—Body and wings deeper-coloured than in *Rh. floralis*, forewing less dentate, on underside the middle line more proximal.

♂. Antenna thinner than in *Rh. floralis*, the segments less deeply constricted. Body above olive-green, somewhat brighter below, particularly on the abdomen, which has a yellowish tint. Tibiae and tarsi more or less blackish, shaded with grey on the upperside; foretibia without terminal claw; hindtibia with a minute anteapical spur and a pair of short apical ones.

Wings, upperside: Forewing olive-green, partly shaded with white, which gives it a sage-green appearance in certain lights; hindmargin a little more deeply sinuate than in *Rh. floralis* and more convex proximally of the sinus, tornal lobe broader, terminal margin more convex in lower half and here hardly at all dentate; three olive-green transverse lines nearly as in *Rh. floralis*; the first straight, shaded with white on outside, the second slightly convex, the third, which crosses R^3 halfway between cell and distal margin, more strongly convex in anterior third and here more distal than in *Rh. floralis*; between second and third lines a narrow band consisting of two rather faint olive-green lines which costally are curved basad; beyond this band a diffuse white costal spot; terminal area a little paler green, shaded with white, the proximal margin of this terminal border dentate, the grey shading projecting at R^2 to near the discal line; hindmargin red at base.—Hindwing carmine, costal area down to R^1 and anal area dull olive-green, the former more sharply defined than in *Rh. floralis*; the red area extending to termen between R^1 and R^3 , but washed with olive-green at the termen.

Underside paler green than upper, with a distinct yellowish green tint; forewing as in *Rh. floralis* with a large carmine patch from near base to just beyond apex of cell; a discal line slightly S-shaped, bounded with white costally on the proximal side, the white sealing also forming a diffuse costal spot proximally of the white line, but connected with it; between this line and the termen a diffuse dark olive-green dentate line corresponding to the distal boundary of the olive-green area of the upperside.—Hindwing: costal margin slightly, but distinctly concave from near base, convex at three-fourths where the distal transverse line reaches the costal margin; three lines as in *Rh. floralis*, but the second line placed much nearer to the first than to the third, proximally of second and third lines conspicuous white shading along the lines, third line convex anteriorly, concave posteriorly (the line straight or nearly so in *Rh. floralis*); a lighter green terminal band very irregular, widest below costal angle

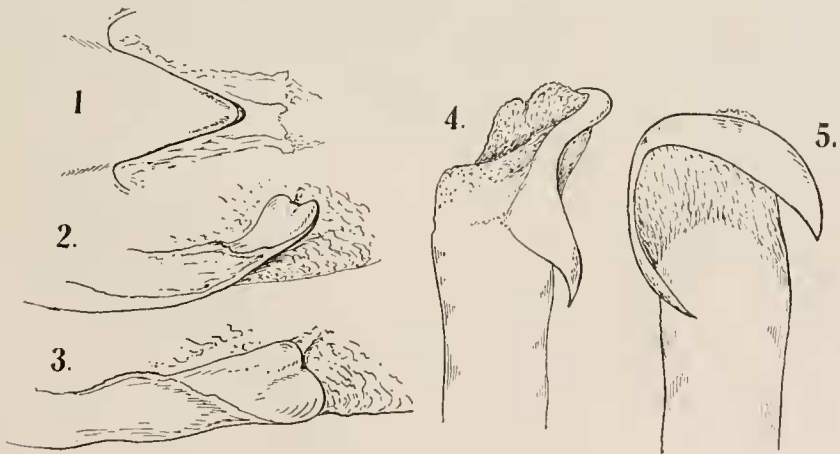
(about 5 mm. broad at R^2), fading away at anal angle, anteriorly within this border diffuse olive-green spots close to termen.

♀. The olive-green colour of the ♂ replaced on the upperside by greenish tawny-olive, on the underside by brighter tawny-olive; in a crippled ♀ the colouring somewhat greener. The white shading on the upperside rather more extended than in the ♂.—On the underside a blackish dot close to apex of forewing corresponds to an olive-green minute dot of the ♂; centre of base of hindwing pale green; on both wings blackish and grey diffuse submarginal shading which, on forewing, forms an irregular triangular patch from anal angle forward, and on hindwing an irregular band which is nearly interrupted before middle.

Genitalia. ♂: tenth tergite longer than in *Rh. floralis*,¹ particularly the narrowed apical portion, at apex a minute median incision, no division into two prongs; margin of tenth sternite faintly incurved in middle. Harpe of clasper as in *Rh. floralis* but the neck of which the pair of prongs are the continuation a little shorter, the prongs slightly variable in lengths, either the proximal prong the longer or the distal one. Penis-sheath with a large, conical, slightly compressed, horizontal tooth.—♀: Around orifice a moderately raised halfring which is open posteriorly, the segment membranous in front of the halfring and at the sides, and wrinkled.

Length of forewing: ♂ 41 mm., ♀ 46 mm.

Hab. Shillong, Assam, bred by Major F. B. Scott in August, October, and November, 1 ♂ and 2 ♀♀, and a pair of cripples.



4. *Gurelca masuriensis* Butl. (1875).

The Indian specimens of *Gurelca* with the terminal band of the hindwing tapering anally were treated by us in the *Revision* as belonging to one species only. Major F. B. Scott, however, has lately obtained specimens of this type from two remarkably different larvae (which he will describe and figure), and on examining the specimens bred by him we find that (1) they represent two

¹ We have now two ♂♂ (and one ♀) of *Rh. floralis*; in one of them the tenth tergite is comparatively short and broad and is forked as figured in the *Revision* (tab. 25, figs. 1 and 24); in the other it is longer and narrower, and the division into two prongs is only indicated by an incision.

species, and (2) that one of them is the true *G. masuriensis*, of which there are no specimens in the Tring Museum. The synonymy as given in the *Revision* must be amended as follows :

Gurelca himachala himachala Butl. (1875).

Lophura himachala Butler, *Proc. Zool. Soc. Lond.* p. 621, no. 1 (1875) (N.E. Himalayas).

Lophura erebina Butler, *l.c.* no. 3 (1875) (N.W. India).

Gurelca masuriensis masuriensis Butl., R. & J., *Revision of Sphingidae*, p. 589, no. 525a, tab. 49, fig. 32, tab. 55, fig. 40 (1903) (partim ; Darjiling ; Buxa, Bhutan ; Khasia Hills ; Cherrapunji).

A second subspecies is *G. himachala sangaica* Butl. (1875) from China, Formosa, Korea, and Japan.

Gurelca masuriensis Butl. (1875).

Lophura masuriensis Butler, *l.c.* p. 244, no. 16, tab. 36, fig. 3 (1875) (Masuri)

G. masuriensis masuriensis Butl., R. & J., *l.c.* p. 589, no 525a (1903) (partim ; Masuri).

This species is greyer than *G. himachala*, the anal lobe of the forewing is shorter, the hindmargin of the wing not being quite so deeply excised as in *G. himachala* ; the black terminal band of the hindwing is anteriorly broader and here not sharply defined, the blackish brown colouring invading the disc ; the yellow area paler, particularly on the underside.

Type (in B.M.) not dissected. In the two ♂♂ bred by Major F. B. Scott the anal tergite more compressed than in *G. himachala*, the sternite (text-fig. 1) less broad and more gradually narrowed to a point. Harpe (text-figs. 2, 3) spatulate, concave on the upperside, with the apical margin incised on emarginate above middle, proximally of the apical dilated portion a low obliquely transverse ridge. The apical armature of the penis-sheath (text-figs. 4, 5) consists of a prominent, non-dentate ridge which ends at both sides with a sharp hook pointing frontad.
